Teacher’s name: Colleen Jaffe Date: March 12, 2012

Topic: Water cycle

Lesson Duration: 2 class periods/50 minutes each

Grade: 6th grade/Adapted lesson for children with Autism

**Description:** This is an adapted lesson plan on the water cycle. It was written for children with severe disabilities especially children with autism. The main objective of this lesson is to familiarize the students with the main parts of the water cycle and get them to understand that water is reused throughout the earth. Children with autism tend to enjoy music, so as a motivator the water cycle song was played. By playing the song it’s not only motivating them to learn more, but also gives the students a chance to hear key vocabulary words such as water, condensation and evaporation. Another important factor about this lesson is the use of visuals. Children with autism learn better when visuals are present. That is why a picture book was created and students were able to match pictures and words. Also, showing the water cycle diagram while explaining the process lets them visualize it rather than just “hearing” it. Finally, a chart was created showing the materials and their uses for their diagram. Creating a 3 D image is not only visual, but it also engages the students and makes learning fun!

This lesson enhances students understanding of waste, water and/or sustainability by introducing them to the concept that water is reused within the earth. Students with autism have difficulty comprehending abstract things, so this concept is hard for them to grasp. One student learn the water cycle, we can go into why conserving water is important and the ways we can conserve water. A wonderful lesson, which I learned in my sustainability class and I can’t wait to do with my students, is showing them how waste and pesticides affect our water supply. I would have my students draw mountains, grass, lakes, rivers etc on a paper with a crayon and then take a water bottle and squirt it onto the page. This would show how all the garbage/pesticides run together and go into our ocean and lakes. After that lesson, I would take my students to the local park so they could physically see that we live by water and this is our water supply.

**Common core standards**:

Standard 7- The Earth-7A-Understands the structure and composition of the Earth’s land, water and atmospheric systems

NY State Standard 6:Key idea 2- Models are simplified representations of objects, structures, or systems, used to analysis, explanation or design

**Professional Standards**:

Domain 3:Instruction-Competency 3c, Engaging students in learning

Competency 3d- Using assessment in Instruction

**Aim**: What are the steps of the water cycle?

**Behavioral Objectives**:

* Students will be able to identify the parts of the water cycle.
* Students will be able to create their own water cycle diagrams.
* Students will be able to explain their water cycle either verbally or through pictures.

**Materials:**

* Water cycle CD, Water cycle picture book ( 6 copies), water cycle diagram, materials for water cycle project (poster board, cotton balls, markers, glue, Easter grass, paper cut out raindrops, paper cut out arrows,

**Motivation**: Students will listen to a song, titled “The water cycle”

**Procedure**:

1. Teacher will call students to the rug area and say, “*I want you to listen to a really cool song, called the water cycle. “* Teacher will play the song. (see handout # 1)
2. Teacher will put a glass of water on the table and say, “*Take a good look at the water. Can you guess how old it is*?” students will be given time to reply
3. Next teacher will say, “*The water in this glass may have fallen from the sky as rain just last week, but the water itself has been around pretty much as long as the earth has! Another cool thing is when the first fish crawled out of the ocean into land; this glass of water was part of that ocean. When the Brontosaurus walked through lakes feeding on plants, your glass was part of those lakes. When kings and princesses, knights and squires took a drink from the wells, this glass of water was part of those wells. Isn’t that awesome?”*
4. Next, teacher will hand out a picture story (see handout #2) titled “Water cycle” and say, “*now that you have listened to the song, we are going to learn exactly what the water cycle is all about!* Students will take turns reading the story and matching pictures from the text*.* Teacher will stop along the way to ask questions.
5. Then, teacher will show the students a large diagram of the water cycle (see handout #3) and explain that they will be creating their very own 3D diagram of the water cycle. Teacher will say, “I have a bunch of materials that you can all use for your diagram.” Teacher will hold up cotton balls, Easter grass etc. Teacher will provide a visual chart so students can see what each of the materials stand for and go over it with the students. .
6. Students will be broken up into pairs (3 groups) and given all of the supplies needed.
7. Teacher and paraprofessionals will assist groups in creating a 3D water cycle model.
8. When the bell rings, teacher will instruct students to clean up and put their diagrams on the table provided for them. Students will finish project next science class and present them.

**Assessment**: Students will be assessed using a teacher made rubric (see handout # 4)

**Follow up**- Students will share the diagram that they created with the class.

**Special notes:**

Differentiation will occur through grouping of the students, using a picture story where students can match picture-to-picture and text-to-text and adapting the project to meet the individualized needs of each student.

# 3-D diagram of the water cycle

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| Use of materials | I used materials appropriately with no reminders | I used materials appropriately with little reminders | I needed some reminding on proper material use | I used materials inappropriately and foolish |
| Participation | I participated in activity and used my time wisely with no reminders | I participated in activity and used my time wisely with little reminders | I needed some reminding to stay on task and use my time wisely | I didn’t participate in the activity and didn’t use my time wisely |
| Creativity | Project is unique and added materials were used. Project is neat | Project is unique and materials given were used | Project is a little messy and some materials were not used | Project is messy and a lot of materials are missing |
| Behavior | I behaved in class and didn’t misbehave | I behaved in class, but needed one reminder to stay on task. | I needed more than one reminder to stay on task | I didn’t behave in class |